

**“An Apparatus Suitable for Aiding Survival During Outdoor Activities”**

**TECHNICAL FIELD AND BACKGROUND OF THE INVENTION**

The present invention relates to an apparatus suitable for aiding survival. The apparatus is primarily intended for use as an apparatus suitable for aiding survival during outdoor activities, especially in extreme weather conditions, and which can also be used as a rescue apparatus in the event of an emergency.

During outdoor activities such as hiking, backpacking, mountain climbing, camping, cycling, hunting and the like, it is known that a camper, hiker, climber or the like involved in any such activity, strives to minimise the weight and volume of their equipment.

Many of these activities require a sleeping bag, a tent and warm clothing to be included in the equipment to be carried. However, the more items included in the equipment, the heavier and more cumbersome the equipment becomes. Carrying heavy equipment on one's back over a period of time can often result in back strain. Furthermore, if the equipment is exceedingly heavy and cumbersome, this can actually cause the user of the equipment, e.g. a camper, hiker or climber, to lose balance on steep terrain, for example, resulting in a fall.

It is unusual for a camper or hiker to limit the contents of their equipment to just a sleeping bag, a tent and a change of clothing.

For example, in the event of the camper, hiker or climber being faced with adverse or even extreme weather conditions, he or she will tend to include an additional rain shielding garment, and even some kind of distress signal indicator which would be easily seen in the event of stormy conditions. The inclusion of such extra items adds further to the weight and bulkiness of the user's equipment.

Due to the problems which can arise when carrying heavy and bulky equipment, the camper, hiker or climber will tend not to carry any additional rescue or emergency apparatus that might add to their load. An outdoor activity such as mountain climbing is particularly dangerous. Furthermore, mountain climbing is a sport that tends to be carried out in remote areas. Thus, a climber who attempts to travel lightly to avoid the problems associated with a heavy load, is putting himself or herself at risk should an accident occur or an emergency arise.

Due to the high-risk nature of activities such as mountain climbing, climbers embarking on a particularly hazardous trip often travel in a group of two or more for safety. In the event of an accident occurring, even in a remote area, the accompany person(s) can therefore try to transport an injured party from the remote area to the nearest medical centre  
5 for medical treatment. It is often vital to the injured party's survival that he or she can be quickly transported from the scene of the accident to the nearest medical centre.

However, it is not an easy task to transport such an injured party. Any standard blanket, sleeping bag or tent is generally unsuitable for carrying the injured party, since it is difficult to grip and carry such a blanket or the like due to the weight of the injured  
10 party lying on it. The injured party therefore has to be dragged from the scene of the accident by the accompanying person(s), which is both uncomfortable and also can exacerbate any injuries. Furthermore, the material of a standard sleeping bag, blanket or a tent tends to tear under the weight of the injured party either when the party is being carried or when being dragged along the ground.

15 It is therefore an object of the present invention to mitigate the disadvantages of known equipment used during outdoor activities.

It is also an object of the invention to overcome the problem of being required to carry several separate items of equipment when involved in an outdoor activity.

It is a further object of the invention to provide a simple, compact item that  
20 may be used for a wide variety of uses during outdoor activities, and as a rescue apparatus in the event of an emergency.

### SUMMARY OF THE INVENTION

According to the present invention, there is provided an apparatus suitable for aiding survival during outdoor activities, the apparatus comprising a sheet defined by  
25 opposing first and second longitudinal edges; and by first and second opposing transverse edges, the first and second longitudinal and transverse edges forming a periphery of the sheet; the sheet being substantially bisected by a notional longitudinal mid-line intermediate the first and second longitudinal edges; at least two pairs of support means, each pair of support means comprising a first support means and a second support means, each first support  
30 means being adjacent the first longitudinal edge; and each second support means being adjacent the notional longitudinal mid-line.

Preferably, the first support means of the pair of support means substantially opposes the second support means of the pair of support means.

Preferably, a plurality of pairs of support means are provided in a substantially parallel spaced-apart arrangement, such that each pair of support means are arranged  
5 substantially transverse to the notional longitudinal mid-line.

Preferably, each of the first and second support means comprises a loop.

Preferably, each of the first and second support means, for example a loop, is adapted for receiving, in use, a hand of an operator, such that the apparatus can be manually supported and carried in use.

10 Preferably, at least some of the first support means are axially aligned (in a longitudinal direction) so as to be suitable for receiving a first elongate support element; and at least some of the second support means are axially aligned (in a longitudinal direction) so as to be suitable for receiving a second elongate support element, such that the apparatus can be supported and carried by one or more operators by means of the first and second support  
15 elements, in use.

Alternatively or additionally, each pair of support means, such as the loops, may be suitably opposed (in a transverse direction) so as to be suitable for receiving an elongate transverse support element, arranged substantially transverse to the first longitudinal edge and to the notional longitudinal mid-line, such that the apparatus can be supported and  
20 carried by one or more operators by means of at least one, optionally a plurality of spaced-apart transverse support elements, in use.

Further alternatively, the plurality of first and second support means, for example the loops, are arranged so as to be suitable for receiving the first and second elongate support elements in an overlapping criss-cross arrangement.

25 Preferably, at least one pair of end support means are provided adjacent the first and second transverse edges, respectively, and preferably, each end support means comprises a loop.

Preferably, a strap extends between adjacent the first support means of the pair of support means and adjacent the second support means of the pair of support means,  
30 wherein the terminal or otherwise free ends of the strap are attached to the sheet at least adjacent the first and second support means.

Alternatively, the strap is integrally formed with the first and second support means, wherein the strap is attached to the sheet at least adjacent the first and second support means.

5 Preferably, a plurality of spaced-apart straps are disposed substantially transversely relative to the longitudinal mid-line.

Preferably, the sheet is provided with fastening means adjacent the first and second longitudinal edges, the fastening means being adapted to releasably secure the first and second longitudinal edges together.

10 Alternatively or additionally, fastening means may further be provided adjacent the first and second transverse edges.

Alternatively or additionally, the apparatus is further provided with securing means on one of the first and second longitudinal edges, the securing means being suitably shaped and dimensioned for a complementary securing arrangement with first or second support means, on the other of the first and second longitudinal edges, such that the first or second support means and the securing means are adapted to secure the first and second longitudinal edges together.

15 Alternatively or additionally, securing means may further be provided on one of the first and second transverse edges, the securing means being suitably shaped and dimensioned for a complementary securing arrangement with first or second support means, on the other of the first and second transverse edges, such that the first or second support means and the securing means are adapted to secure the first and second transverse edges together.

20 Preferably, the fastening means and/or the securing means are in the form of zip fasteners, hooks, snap fasteners, Velcro (Trade Mark), clips, clasps, straps with buckles, loops or the like.

Preferably, the sheet has a first surface and a second surface opposed to the first surface, the first surface being adapted to surround a user's body when the sheet is in a folded state.

30 Preferably, the second surface is substantially bisected, when the apparatus is in the folded state, into upper and lower surfaces, and the support means are secured to the lower surface, in use.

Preferably, each of the straps is secured along at least some of its length to the lower surface of the sheet in use.

Preferably, at least one corner support means is also provided at each corner of the sheet, to enable each corner of the sheet to be fastened to at least one support to create a water catcher. More preferably, each corner support means comprises a loop.

Preferably, the sheet is further provided with a plurality of eyelets arranged around the at least first and second longitudinal edges of the sheet, wherein the eyelets are adapted to receive a peg to secure the at least first and second longitudinal edges of the sheet to the ground, to enable the sheet to form a tent-like structure.

Preferably, the first surface is brightly coloured to enable the sheet to be used as a distress signal indicator.

Additionally, at least the upper surface of the second surface is brightly coloured to enable the sheet to be used as a distress signal indicator when the sheet is in the folded state.

Preferably, the first surface is fluorescent or luminescent and/or reflective.

Additionally, at least the upper surface of the second surface is fluorescent or luminescent and/or reflective.

Preferably, the sheet is provided with a thermally insulating material located between the first and second surfaces, such as Warmtech (Trade Mark), supplied by The Mont Blanc Technology Company, a limited liability company registered at the Bonneville Corporate and Trade Register in France under the number B 434 852 737, whose head office is located at 10 Cour Bartavel, 74400 Chamonix, France.

Preferably, an external layer of a fire retardant material, such as CarbonX (Trade Mark), supplied by Chapman Innovations, 155 North 400 West, Suite 550, Salt Lake City, Utah 84103, USA, is provided on the second surface.

Preferably, the sheet is provided with a substantially centrally disposed aperture, to enable the apparatus to be used as a rain-shielding garment such as a poncho. The aperture is, for example, located substantially mid-way along the notional longitudinal mid-line.

Preferably, the aperture is substantially covered by a portion of material, which, when the apparatus is being used as a poncho, acts as a hood covering the user's head.

According to the present invention, there is provided a kit suitable for aiding survival during outdoor activities, the kit comprising a sheet as defined hereinbefore and at least one elongate and/or transverse support elements such that the kit can be assembled in the form of any one of a sleeping bag, a blanket, a distress signal indicator, a stretcher, a water catcher, a hammock, a tent, a shelter or a poncho.

#### DETAILED DESCRIPTION OF THE DRAWINGS

Embodiments of the present invention will now be described with reference to the accompanying drawings, in which:

FIG. 1 is a plan view of an apparatus suitable for aiding survival during outdoor activities according to a preferred embodiment of the present invention, the apparatus comprising a sheet which is substantially quadrilateral, preferably substantially rectangular, in its deployed state;

FIG. 2 is a plan view of the apparatus of FIG. 1, viewed from the opposite side, showing the apparatus in a folded state, thereby forming an enclosure for receiving a user's body;

FIG. 3 is a side, partially cutaway, view of the apparatus, showing a schematic outline of a user's body within the apparatus;

FIG. 4 is a view of the apparatus of FIG. 2, wherein a plurality of support means in the form of loops provided on the apparatus are shown to enable the apparatus to manually supported and carried, in use;

FIG. 5 is a view of the apparatus of FIG. 4, wherein the support means in the form of loops are used for elongate support elements in the form of poles, to enable the apparatus to be supported and carried by means of the poles;

FIG. 6 is a plan view of the lower surface of the apparatus in the folded state, in use, wherein the elongate support elements in the form of poles of FIG. 5, are shown to be inserted between the straps and the apparatus in an overlapping criss-cross arrangement;

FIG. 7 is a perspective view of the apparatus mounted to four trees, one at each corner, using the corner support means in the form of loops of the apparatus, the apparatus being used as a water carrier;

FIG. 8 is a side elevation of the apparatus in the folded state, the apparatus being used as a hammock;

FIG. 9 is a perspective view of the apparatus being used as a tent; and

FIG. 10 shows the apparatus being used as a shelter.

#### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to the accompanying drawings, there is provided an apparatus 10 according to a preferred embodiment of the present invention. The apparatus 10 preferably comprises a sheet 12 defined by opposing first and second longitudinal edges 14, 16, and by first and second opposing transverse edges 18, 20. The sheet 12 is substantially bisected by a notional longitudinal mid-line 22 provided intermediate the first and second longitudinal edges 14, 16, and preferably disposed substantially parallel thereto. The sheet 12 is also provided with a plurality of first and second support means 24, 26 adjacent at least the first longitudinal edge 14 and the longitudinal mid-line 22, respectively. The sheet 12 preferably additionally comprises a plurality of spaced-apart straps 40 disposed substantially transverse to the longitudinal mid-line 22.

The apparatus 10 is conveniently convertible into a number of different configurations, including that of a sleeping bag, a blanket, a distress signal indicator, a stretcher, a water catcher, a hammock, a tent, a shelter or a poncho. Once the apparatus 10 is in the desired configuration for a particular use, the apparatus 10 can be conveniently supported and carried using one or more of the first and second support means 24, 26 and/or the straps 40, as will be described in more detail hereinafter.

The sheet 12 is preferably substantially quadrilateral, preferably substantially rectangular, in plan in its deployed, substantially planar state. Referring now to FIG. 3, the sheet 12 comprises a first surface 28, and a second surface 30 substantially opposed to the first surface 28, wherein the first surface 28 is adapted to surround a user's body 32, in use, when the sheet 12 is in a folded state. When the apparatus 10 is being used as a stretcher, as shown in FIGS. 4, 5 and 6 for example, the sheet 12 is generally bisected along the notional longitudinal mid-line 22, such that the second surface 30 is bisected into upper and lower surfaces 34, 36, in use.

The apparatus 10 may be made from any suitable material. A particularly preferred material is a thermally insulating material, such as Warmtech (Trade Mark), supplied by The Mont Blanc Technology Company, 10 Cour Bartavel, 74400 Chamonix, France. Warmtech (Trade Mark) is a two layer composite fabric including an external waterproof layer laminated to which is an aluminised breathable membrane then an inner thermally insulating layer. Thus, the first surface 28 of the sheet 12 is preferably thermally

insulating, and the second surface 30 is preferably waterproof. The membrane laminated to the external fabric is composed of a hydrophilic aliphatic polyether-urethane with 30% of metallic aluminum that gives high heat-reflecting capacity based on the mass of the polymer. The membrane is waterproof and breathable - the polymer is hydrophilic and transports the moisture produced by the body perspiration with a chemical process called "ionic diffusion". Other suitable materials which may be used include cotton, nylon, or any other man-made fibre consistent with clothing or apparel manufacture.

It will be appreciated that, if desired, the covering of the material CarbonX (Trade Mark) (supplied by Chapman Innovations, 155 North 400 West, Suite 550, Salt Lake City, Utah 84103, USA) may be substituted as the external layer with the CarbonX material laminated with Warmtech (Trade Mark) laminate technology. CarbonX (Trade Mark) is a fire retardant material, which serves to protect the body 32 of the user from fire and/or extreme temperatures. Specifically, CarbonX (Trade Mark) in its raw form, is a yarn created by spinning O-PAN (oxidized polyacrylonitrile) fibre with an Aramid strengthening fibre. This formula results in a yarn with amazing fire resistant characteristics that serves as the precursor to a wide array of products and applications requiring heat and flame resistance. The CarbonX yarn can then be converted into an array of fabrics ranging from woven fabrics, knitted fabrics and non-woven felts is present on the third surface. Therefore, combining the CarbonX with the Warmtech Technology laminate and inner lining provides a material which will protect against the extremes of temperature and/or fire and provide thermal insulation and, additionally, water protection.

At least the first surface 28 of the apparatus 10 is preferably brightly coloured. The first surface 28 may also be fluorescent or luminescent and/or reflective. Additionally or alternatively, at least the upper surface 34 is preferably brightly coloured or may be fluorescent, luminescent and/or reflective.

Referring now to FIG. 1, the apparatus 10 is shown to comprise a plurality of first and second support means 24, 26, ideally arranged in opposed pairs. Each of the pairs of support means preferably comprises a first support means 24 adjacent the first longitudinal edge 14, and a second support means 26 provided adjacent the notional longitudinal mid-line 22. Preferably, each of the first and second support means 24, 26 of any pair of support means oppose one another. Thus, a plurality of pairs of support means are preferably provided on the sheet 12 in a parallel spaced-apart arrangement, transverse to the notional



longitudinal mid-line 22. The apparatus 10 preferably comprises at least two pairs of support means 24, 26, more preferably four pairs of support means, as shown in FIG. 1 for example. It will be appreciated that the first and second support means 24, 26 of any particular pair of support means need not necessarily oppose one another, and may, alternatively, be formed in a staggered arrangement (not shown) off-set from each other.

The sheet 12 preferably comprises additional support means 27 provided adjacent the first and second opposing transverse edges 18, 20. These support means 27 are also preferably arranged in pairs, as shown in FIG. 1 for example, each pair having a first and second support means 27 adjacent the first and second transverse edges 18, 20, respectively.

The additional support means 27, referred to hereinafter as end support means 27, are generally provided on the transverse edges 18, 20 of the sheet 12, adjacent the first longitudinal edge 14 and adjacent the notional longitudinal mid-line 22. Therefore, when the sheet 12 is in the folded state, as shown for example in FIG. 2, the end support means 27 conveniently protrude from both transverse ends of the sheet 12. The sheet 12 is also preferably provided with two pairs of corner support means 29. Thus, a support means 29 is also provided at each corner of the sheet 12 (referring to FIG. 1 when the sheet 12 is in the deployed state).

Each of the support means 24, 26, 27, 29, may be independently secured to the sheet 12 using any suitable affixing means (not shown) such as stitching or glue. The support means 24, 26, 27, 29 may be secured to the sheet 12 either at the respective edge or corner of the sheet 12, or alternatively, at a suitable distance therefrom.

Each of the support means 24, 26, 27, 29 preferably comprises a loop 38. Referring to FIG. 4, each of the loops 38 is preferably shaped and dimensioned so as to be adapted for receiving, in use, a hand 42 of an operator (not shown). Thus, using the support means 24, 26, 27, 29, the apparatus 10 can be manually supported and carried, in use. It will be appreciated that the support means 24, 26, 27, 29, when in the form of loops 38, may be used in a number of alternative ways, to support and carry the apparatus 10 in use. For example, referring to FIGS. 5 – 9 in particular, the loops 38 may be adapted to receive one or more elongate support elements 44, such as a pole. The loops 38 may also be arranged to receive a tie 50, such as a length of rope or cord, used to attach the apparatus 10 to a surrounding object, such as a tree 52. Examples of the alternative uses of the loops 38 of the apparatus 10, will be described in more detail hereinafter.

It will be appreciated that although the support means 24, 26, 27, 29 are preferably in the form of loops 38, the support means 24, 26, 27, 29 may be any alternative form, such as hooks, snap fasteners, Velcro (Trade Mark), clips, clasps, straps with buckles or loops, or any other suitable means.

Each of the straps 40 is preferably arranged to extend between the first support means 24 and the second support means 26 of the pair of support means. Each of the straps 40 is preferably integrally formed with, and terminates in, first and second support means 24, 26. In this arrangement, each of the straps 40 is preferably connected to the sheet 12 adjacent the first longitudinal edge 14, and adjacent the longitudinal mid-line 22. Thus, in this arrangement, each of the support means 24, 26, is connected to the sheet 12 via a respective strap 40. It will be appreciated that the straps 40 may be secured to the sheet 12 either at the respective edge 14 or mid-line 22 of the sheet 12, or alternatively, at a suitable distance therefrom. The straps 40 may also be secured to the sheet 12 at any further desired points (not shown) along the length of the respective strap 40. Each of the straps 40 is preferably secured only along some of its length to the lower surface 36 of the sheet 12 in use. Advantageously, this enables one or more support elements 44 to be inserted between one or more straps 40 and the lower surface 36, as will be described in more detail below. Alternatively, each of the straps 40 may be secured along its length to the sheet 12.

The apparatus 10 is also provided with fastening means 46 around some or all of the periphery of the sheet 12. The fastening means 46 are adapted to secure the first longitudinal edge 14 to the second longitudinal edge 16. Preferably, the fastening means 46 also enables the facing portions, in the folded state, of the first transverse edge 18 extending from the mid-line 22 in opposite directions to be secured together; and the facing portions, in the folded state, of the second transverse edge 20 extending from the mid-line 22 in opposite directions to be secured together, in order to form a substantially sealed enclosure. Thus, the fastening means 46 is preferably in the form of a zip fastener provided on the first surface 28 of the sheet 12, and as indicated by a dotted line in FIG. 1, to enable the sheet 12 to be secured together, in its folded state, around the whole periphery thereof. The fastening means 46 may alternatively, or additionally, comprise a plurality of discrete fasteners 48 such as hooks, snap fasteners, Velcro (Trade Mark), clips, clasps, straps with buckles or loops, or any other suitable means, to secure the apparatus 10 together.

It will be apparent that the support means 24, 26, 27, 29 may also be adapted to secure the first and second longitudinal edges 14, 16 to one another, or even to secure the whole sheet 12 together. Although the support means 24, 26, 27, 29 are preferably in the form of loops 38, the first support means 24 adjacent the first longitudinal edge 14 may be further adapted to secure the first and second longitudinal edges 24, 26 to each other. For example, the apparatus 10 may be provided with securing means (not shown) adjacent the second longitudinal edge 16. The securing means would be suitably shaped and dimensioned for a complementary fit, and a securing arrangement, with the first support means 24. Each of the securing means could, for example, comprise one half of a Velcro (Trade Mark) strip, wherein the other complementary half of the Velcro (Trade Mark) strip would be provided on the first support means 24. The securing means may, however, be in any other form, such as hooks, snap fasteners, Velcro (Trade Mark), clips, clasps, straps with buckles or loops, or any other suitable means. Thus, the first support means 24, and any other support means 26, 27, 29, may advantageously be used as both support means for the apparatus 10, and, furthermore, as securing means to close the apparatus 10 when it is folded in two.

In use, the apparatus 10 is suitable for a wide variety of uses during outdoor activities. For example, the apparatus 10 can conveniently be converted into a sleeping bag, a blanket, a water catcher, a hammock, a tent, a shelter and a poncho. Thus, the apparatus 10 is especially suitable for aiding survival during outdoor activities, since any of these desired configurations can be used. Furthermore, in the event of an emergency, the apparatus 10 can conveniently be converted into a rescue apparatus in the form of a stretcher, and a distress signal indicator to attract attention.

The apparatus 10 will now be described, in use, as a sleeping bag, a blanket, a distress signal indicator, a stretcher, a water catcher, a hammock, a tent, a shelter and a poncho.

Referring now to FIGS. 2 and 3, the apparatus 10 is shown, in use, as a sleeping bag. In order to create the sleeping bag, the apparatus 10 is folded in two along the mid-line 22, and closed on three sides in a conventional manner using the zip fastener 46 or any other suitable means 24, 26, 27, 29, 48 described above. Instead of merely having a notional mid-line 22, a distinctively marked-out mid-line (not shown) may be provided on one of the surfaces 28, 30 of the sheet 12, if desired. Once folded, the apparatus 10 is adapted to receive the user's body 32 for use as a sleeping bag.

When the apparatus 10 is being used as a sleeping bag, the first surface 28 which comprises the inner, thermally insulating layer, advantageously touches against and thermally insulates the body 32. The thermally insulating properties of the inner surface material enables the body 32 of the user to be protected within the sleeping bag from extreme temperatures ranging, for example, between +35°C and -35°C. Furthermore, the second surface 30, being waterproof, prevents liquids such as water from entering the sleeping bag through said surface 30. Additionally, if the apparatus is provided with a layer of Carbonex (Trade Mark) on the second surface 30 thereof, the body 32 will be further protected from extremely hot temperatures in the event of a fire. It will be appreciated that, although Warmtech (Trade Mark), and optionally Carbonex (Trade Mark) are particularly suitable materials for the apparatus 10, any other suitable material may be used to create the apparatus 10.

It will be apparent that, since the apparatus 10 can be used as a sleeping bag, the apparatus 10 is therefore also adaptable to be used as a blanket simply wrapped around the user's body 32, without necessarily being fastened. In this case, the apparatus 10 will provide the advantages of thermally insulating the body 32 and protecting the body 32 from fire as described above.

In its deployed state, as shown in FIG. 1 for example, the apparatus 10 can also conveniently be used as a distress signal indicator (not shown). The first surface 28 is preferably brightly coloured, even fluorescent or luminescent, and/or reflective. By placing the apparatus 10 on the ground, such that the second, waterproof, surface 30 abuts the ground or any other suitable surface (not shown), bright colour of the first surface 28 is exposed to passers-by, emergency services or the like. The distress signal indicator can be secured to the ground or other surface by placing ground-engaging means (not shown) through any of the loops 38 or suitably shaped fastening means 48. Therefore, the apparatus 10 can conveniently be used to draw attention to an injured party for example, when used as a distress signal indicator.

It will be apparent that at least the upper surface 34 of the second surface 30, in use, may also be brightly coloured, even fluorescent or luminescent, and/or reflective. In this way, the bright upper surface 34 could be seen when the injured party is actually within the apparatus 10 in the form of a sleeping bag or a stretcher.

Referring now to FIGS. 4, 5 and 6 in particular, the apparatus 10 is shown in a folded state, in use, as a stretcher. FIGS. 4, 5 and 6 each show different ways in which the support means 24, 26, 27, 29, particularly when in the form of loops 38, may be used to support and carry the apparatus 10 when used as a stretcher.

5 As described above, with reference to FIG. 4, each of the loops 38 is preferably shaped and dimensioned so as to be adapted for receiving, in use, a hand 42 of an operator (not shown). Thus, if the user of the apparatus 10 is injured, the injured party can be placed on the upper surface 34 of the stretcher. Then, one or more operators in the form of accompanying persons or emergency workers (not shown) can manually grip the loops 38, in  
10 order to manually support and carry the apparatus 10 as a stretcher. This arrangement is particularly useful in the event of an accident occurring in a remote area. The apparatus 10 can be used as a rescue apparatus in the form of a stretcher, enabling the injured party to be easily transported to a desired location, such as a medical centre, to receive treatment for the injury.

15 It will be appreciated that, although the injured party may be placed on the upper surface 34, the apparatus 10 may conveniently be used as a stretcher and sleeping bag combination at one time. If the injured party is also suffering from hypothermia, for example, the injured party can be placed within the apparatus 10 as described above in relation to FIG. 3, in order to be thermally insulated, whilst being supported and carried on  
20 the apparatus 10 as a stretcher.

The straps 40 are preferably formed from a substantially rigid material, especially nylon. However, the straps 40 may, if desired, be formed from a substantially resilient material. It will be apparent that the straps 40 provide support to the body of an injured party when the apparatus 10 is used as a stretcher. In particular, and referring to FIG.  
25 3 as an example, the straps 40 provide support to vital areas of the body 32 such as the head, the back, the thighs and area around the feet. In this way, the injured party, when carried in this manner, is not subjected to adverse stresses being placed on the body 32, since the body 32 is supported in the necessary areas. The material of the straps 40 can therefore be adapted in order to suit different uses of the apparatus 10. Furthermore, it will be appreciated that the  
30 straps 40 can be replaceable, if desired, so that straps 40 of a particular strength can be used for a particular use.

FIG. 5 shows a variation of the apparatus 10 being used as a stretcher. Each pair of first and second support means 24, 26 are shown to be aligned transversely. In this arrangement, the loops 38 of the support means 24, 26 are adapted to receive first and second elongate support elements 44 along the first longitudinal edge 14 and the mid-line 22 respectively. The elongate support elements 44 are preferably in the form of poles, alternatively in the form of beams or the like. Therefore, the stretcher can conveniently be supported and carried by two or more operators, by manually gripping the poles 44. This variation can also be useful if it is desired to support an injured party on the apparatus 10 at a distance above the ground. For example, the poles 44 can be arranged so that the ends of the poles 44 rest on surrounding trees (not shown), or are wedged within surrounding rocks, for example. In this case, the apparatus 10 can be securely suspended at a distance above the ground. The loops 38 are also adapted so as to be suitable for receiving a plurality of substantially parallel transverse support elements 45 (as shown in FIG. 6 for example), substantially transverse to the first longitudinal edge 14 and longitudinal mid-line 22.

A further variation of the apparatus being used as a stretcher is shown in FIG. 6. In this case, the two poles 44 are inserted between the straps 40 and the lower surface 36 as shown in FIG. 6, and through opposing end support means 27, so that the poles 44 are arranged in an overlapping criss-cross arrangement against the lower surface 36 of the apparatus 10 in use. It will be appreciated that this arrangement may be adapted to include further poles (not shown), thereby forming a lattice structure (not shown) of poles, to provide even further support to the apparatus 10. Alternatively, the precise positioning of the poles 44 may be modified to suit any particular situation. This arrangement may be particularly useful if, for example, the injured party has received an injury to his or her back, and requires additional support provided by the criss-cross arrangement of the poles 44.

Referring now to FIG. 7, the apparatus 10 is shown being used as a water catcher. Each of the loops 38 of the corner support means 29 is arranged to receive a tie 50 used to attach the apparatus 10 to a tree 52 or the like. The ties 50 are preferably a length of rope or cord, however they may be in the form of any other suitable tying means (not shown). The apparatus 10 is preferably tied to the trees in such a way that the second surface 30 is upwardly facing, the apparatus 10 being substantially concave in shape as shown in FIG. 7. Thus, due to the bowl-like concave shape of the apparatus 10, and since the outer surface 30 is waterproof, the apparatus 10 can be used to efficiently catch water when it rains or from

condensation in warm climates. This arrangement is particularly suitable for when the apparatus 10 is being used in a forest or wooded area, in order to use trees 52 as supports. It will be appreciated that the apparatus 10 can, naturally, be used as a water catcher using supports (not shown) other than trees 52.

5 Referring now to FIG. 8, the apparatus 10 is shown being used as a hammock. The hammock is arranged and attached to supports such as trees (not shown in FIG. 8), in a similar way to the water catcher described above. However, before attaching the apparatus 10 to supports, the sheet 12 is generally folded in two as with the sleeping bag variation of FIG. 3. The end support means 27 are preferably used to attach the hammock to the supports,  
10 however, it will be apparent that a combination of corner support means 29 and first and second support means 24, 26, may alternatively be used.

FIG. 9 shows the apparatus 10 in the form of a tent. In use, the apparatus 10 is generally arranged into an inverted V-shape as shown, with the waterproof second surface 30 arranged to face outwardly. A tie 50 in the form of a length of rope or cord is generally  
15 placed abutting the notional mid-line 22, the otherwise free ends of the tie 50 being attached to supports (not shown in FIG. 9) as described above for the water catcher and hammock. In this way, the apparatus 10 used as a tent is supported along the length of the notional longitudinal mid-line 22. In order to secure the tent to the ground, a plurality of tent pegs 54 can be inserted into one or more of the loops 38 or the discrete fastening means 48 provided  
20 around the periphery of the sheet 12. It will be appreciated that a number of eyelets (not shown) may additionally be provided around the periphery of the sheet 12 for this purpose. This arrangement of the apparatus 10 can be conveniently used to shelter the user.

In a further variation, and referring now to FIG. 10, the apparatus 10 can also be conveniently used as a shelter even on steep terrain, where it would not be convenient to  
25 mount the apparatus 10 in the shape of the conventional tent. For the apparatus 10 can be placed at an angle relative to the incline of the terrain, and then be secured using pegs 54 and the like, as previously described above. It will be appreciated that the waterproof second surface 30 should generally be positioned so as to face outwardly to protect the user from any rain or the like.

30 The apparatus 10 may also be provided with a substantially centrally disposed aperture (not shown) to enable the apparatus 10 to be worn as a poncho (not shown). It will be appreciated that the apparatus 10 may be further modified, for example by providing the

aperture with a zip fastener (not shown), and/or providing a portion of material (not shown) arranged to cover the aperture when the apparatus 10 is not being used as a poncho, and to act as a hood for the user's head when the apparatus 10 is being used as a poncho.

It will be appreciated that the invention is not limited to the embodiments described herein. For example, it is envisaged that an assembly for use as a kit (not shown) could comprise an apparatus 10 as described herein, and one or more support elements 44, such as poles, and/or lengths of cord or rope.

It will be apparent that although the support means 24, 26, 27, 29, have been described as being formed in pairs, the invention is not limited thereto. For example, the support means 24, 26, 27, 29, may be uneven in number and/or unevenly spaced apart (not shown). In this way, the support means, not being in pairs, may be adapted to be used as previously described herein.

It will be further apparent that, although the support means 24, 26, 27, 29 are generally preferred in the form of loops 38, the support means may alternatively be in any other suitable form. For example, in a further variation, the support means 24, 26, 27 could be in the in the form of elongate sleeves (not shown) provided at or adjacent the first longitudinal edge 14, the mid-line 22, and the first and second transverse edges 18, 20, respectively.

It will be appreciated that although each of the straps 40 is preferably integrally formed with its respective first and second support means 24, 26, as previously described herein, the invention is not limited to this arrangement. The straps 40 may, alternatively, be independent of the first and second support means 24, 26, in which case the support means 24, 26, will generally be independently secured to the sheet 12 using any suitable means (not shown), as previously described herein. Furthermore, the otherwise free ends of the straps 40 would therefore also preferably be independently attached to the sheet 12 adjacent the first and second support means 24, 26.

It will be further appreciated that the straps 40 are not limited to a spaced-apart arrangement, transverse to the longitudinal mid-line 22. The straps 40 may alternatively be disposed at any desired angle relative to the mid-line 22. Furthermore, the straps 40 are not required to extend all the way between the first and second support means 24, 26, and any other suitable arrangement of straps may be used.



It will be still further apparent that the elongate support elements 44 and the ties 50 may be interchangeable as appropriate and as required by a particular use of the apparatus 10.

5 The apparatus 10 of the present invention may be still further modified, without departing from the scope of the present invention. The apparatus 10 has been described as being suitable for use as any one of and/or a combination of a sleeping bag, a blanket, a distress signal indicator, a stretcher, a water catcher, a hammock, a tent, a shelter or a poncho. Thus, it will be appreciated that any of the features of the invention may be modified to as to enable the apparatus 10 to be used for further uses not explicitly described  
10 herein, but falling within the scope of the present invention.

The present invention is not limited to the embodiments described herein, which may be amended or modified without departing from the scope of the present invention.